

AMENDMENT TO THE CLAIMS

1. (currently amended) An apparatus for coupling one of a battery charger and a battery tester to a battery, comprising:

a cable ~~including a main electrical conductor capable of carrying a charging current and first and second electrical conductors, wherein at least one of first and second electrical conductors provide a Kelvin connection capability for injecting a forcing function into the battery and measuring a voltage across the battery;~~

a first elongate clamp member having a first jaw end and a first hand grip end separated by a first pivot coupling, the first elongate clamp member having a conductive piece coupled to the first jaw end for making contact with a contact of the battery and the first hand grip having a first hole formed therein;

a second elongate clamp member having a second jaw end and a second hand grip end separated by a second pivot coupling, the second elongate clamp member pivotally joined to the first elongate clamp member by the first and second pivot couplings whereby the first and second jaws are generally aligned together;

a terminal electrically coupled to the ~~main electrical conductoreable~~ having a terminal hole formed therein aligned with the first hole in the first hand grip; and

a removable fastener which couples the terminal to the first hand grip through the first hole and the terminal hole whereby the first hand grip can be disconnected from the ~~main electrical conductoreable~~.

2. (currently amended) The apparatus of claim 1 including a first electrical plug electrically coupled to the clamp ~~through first and second wire connectors of the clamp~~ and a second electrical plug electrically coupled to the ~~first and second electrical conductors of the cable~~, the first and second plugs configured to removably electrically couple together.

3. (currently amended) The apparatus of claim 1, wherein the ~~cable includes a main electrical conductoreconnector electrically coupled to the terminal and is~~ capable of carrying a high current.

4-5. (canceled).

6. (currently amended) The apparatus of claim 5~~1~~, wherein at least one of the first ~~connector~~
~~electrical conductor~~ and the second ~~connector~~~~electrical conductor~~ provides a sensor lead for
sensing a physical property of the battery.

7. (original) The apparatus of claim 1 including a spring coupled to the first and second elongate
clamp members configured to urge the first and second jaws together to a closed position.

8. (original) The apparatus of claim 1, wherein the first hand grip and the second hand grip are
covered with an insulating material.

9. (original) The apparatus of claim 1, wherein the terminal comprises a tin-plated ring.

10. (original) The apparatus of claim 1, wherein the replaceable fastener comprises a nut and bolt.

11. (currently amended) An apparatus for coupling a battery charger or battery tester to a battery,
comprising:

- a cable;

- a first elongate clamp member having a first jaw end and a first hand grip end separated
by a first pivot coupling, the first elongate clamp member having a conductive
piece coupled to the first jaw end for making contact with a contact of the battery
and the first hand grip having a first hole formed therein;

- a second elongate clamp member having a second jaw end and a second hand grip end
separated by a second pivot coupling, the second elongate clamp member
pivotally joined to the first elongate clamp member by the first and second pivot
couplings whereby the first and second jaws are generally aligned together;

- a terminal electrically coupled to the cable having a terminal hole formed therein aligned
with the first hole in the first hand grip;

a first electrical plug coupled to the clamp;
a second electrical plug coupled to the cable, wherein the first and second electrical plug
removably electrically couple together and are housed in the first hand grip;
a removable fastener which couples the terminal to the first hand grip through the first
hole and the terminal hole; and
wherein the clamp can be disconnected from the cable by removing the removable
fastener and unplugging the first and the second electrical plugs.

12. (currently amended) The apparatus of claim 11, wherein the first plug is electrically coupled to
the clamp through ~~a first portion of a first electrical connector and a first portion of a second~~
~~electrical and second wire connectors.~~

13. (currently amended) The apparatus of claim 12, wherein the second plug is electrically coupled
to the cable through ~~a second portion of the first electrical connector and a second portion of the~~
~~second electrical connector~~ first and second electrical conductors of the cable.

14. (currently amended) The apparatus of claim 13, wherein the first and second portions of the first
~~electrical connector wire connectors~~ and the first and second portions of the second electrical
~~connector conductors~~ are configured to removably electrically couple together through the first and
second plugs.

15. (currently amended) The apparatus of claim 13, wherein one of the first and second electrical
~~connectors conductors~~ includes two electrically isolated electrical contacts that provide a Kelvin
connection.

16. (currently amended) The apparatus of claim 15, wherein one of the first and second electrical ~~connectors~~conductors comprise a sensor lead.

17. (currently amended) The apparatus of claim 13, wherein the first and second electrical ~~connectors~~conductors comprise acid-resistant ~~connectors~~conductors.

18. (currently amended) A method of coupling one of a battery charger and a battery tester to a battery, the method comprising:

providing a cable including a main electrical conductor capable of carrying a charging current and first and second electrical conductors, wherein at least one of the first and second electrical conductors provide a Kelvin connection capability for injecting a forcing function into the battery and measuring a voltage across the battery;

providing a first elongate clamp member pivotally joined to a second elongate clamp member by first and second couplings, the first elongate clamp member including:

a first jaw end having a conductive piece coupled to the first jaw end for making contact with a contact of the battery;

a first hole in the first elongate hand grip;

providing a terminal electrically coupled to an end of the ~~cable~~main electrical conductor and having a terminal hole formed therein which aligns with the first hole in the first hand grip; and

removably fastening the terminal to the clamp member through the first hole and the terminal hole such that the clamp can be disconnected from the ~~cable~~main electrical conductor.

19. (currently amended) The method of claim 18 and further comprising:

providing a first electrical plug electrically coupled to the clamp and a second electrical plug electrically coupled to the first and second electrical conductors of the cable; and removably connecting the first electrical plug and the second electrical plug such that the first and second electrical plugs can be electrically disconnected from each other.

20. (currently amended) The method of claim 19, wherein removably connecting the first and second electrical plugs comprises:

electrically connecting a first ~~portion~~ wire connector coupling the first plug to the clamp and a second wire connector coupling the first plug to the clamp to the cable through the second plug of a first electrical connector from the first plug to the clamp and connecting a second portion of the first electrical connector from the second plug to the cable; and
electrically connecting a first portion of a second electrical connector from the second plug to the clamp and connecting a second portion of the second electrical connector from the second plug to the cable.

21. (currently amended) The method of claim 20, wherein the first electrical ~~connector-conductor~~ includes two electrically isolated electrical contacts which provide a Kelvin connection and the second electrical ~~connector-conductor~~ comprises a sensor lead.

22. (currently amended) The method of claim 18, wherein ~~providing the cable comprises providing a~~ the main electrical connector-conductor electrically coupled to the terminal and is capable of carrying a high charging current.